A Proposed Vision Information Architecture

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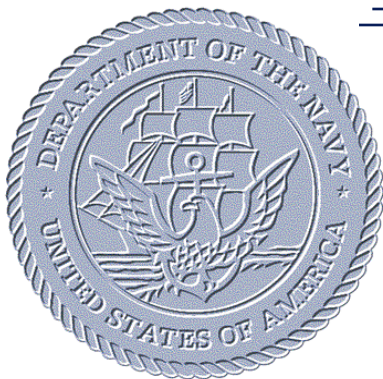
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The Need
(Good News)

- Explosion of Information Technology (IT) has nurtured the development of very capable systems

- Desktop computing resources have taken systems development out of the "glass-house" and down to the end-user

- "Communities of interest" are getting their specific problems solved

- "Standards" are finally being recognized as a best-practice

The Need
(Bad News)

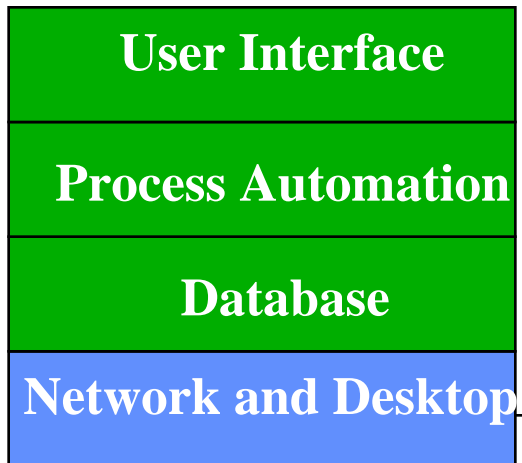- There are hundreds of "capable systems" which don't interoperate

- Many systems are developed in isolation (i.e.. "Stovepipes")

- Use of "Standards" does not guarantee interoperability

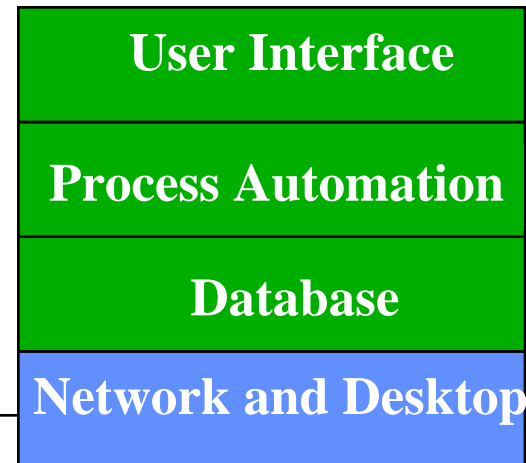# The Need
(Typical Systems Architecture)

System A

User Interface
Process Automation
Database
Network and Desktop

System B

User Interface
Process Automation
Database
Network and Desktop

The Need
(In Summary)

- Applications/systems are built as self-contained "stove pipes"
- There is little or no interaction between applications/systems. At most, they share a common desktop platform, and a LAN.
- Little use is made of COTS, instead we frequently rely on "coding from scratch".
- The lack of commonality and systems approach has yielded applications that do not scale well across the enterprise.
- Our applications cannot share needed data and do not yield consistent information.
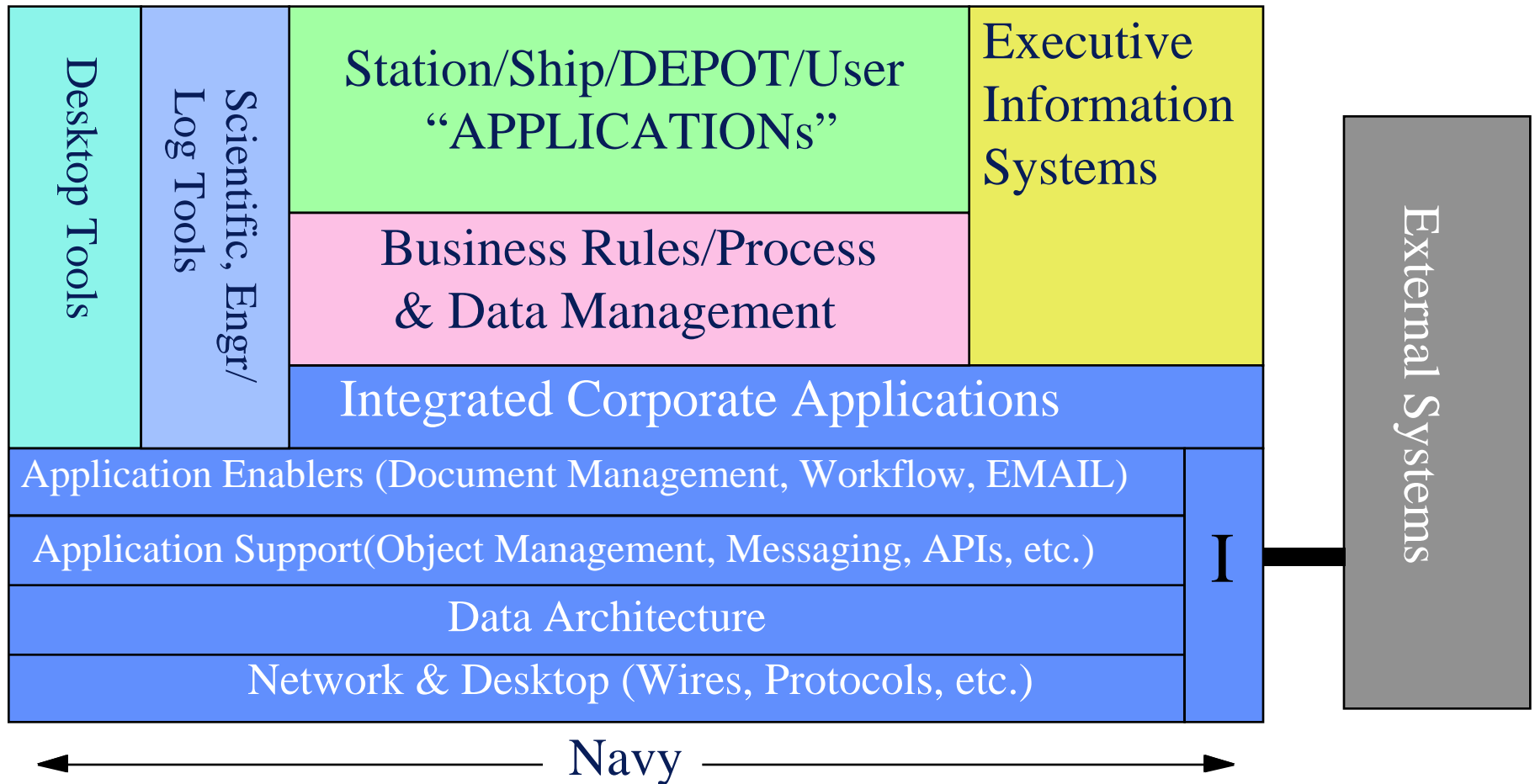
The Architecture
(Goals)

- Factor-out common elements from stove-pipe applications
- Generalize the factored elements and describe using industry-standard terminology
- Redefine infrastructure to include the industry standard elements
- Provide appropriate interfaces at each level to service applications and subscribers
- Preserve a community's ability to solve its unique problems

Vision Architecture

Desktop Tools	Scientific, Engr/ Log Tools	Station/Ship/DEPOT/User "APPLICATIONs"	Executive Information Systems
		Business Rules/Process & Data Management	

Integrated Corporate Applications

Application Enablers (Document Management, Workflow, EMAIL)

Application Support(Object Management, Messaging, APIs, etc.)

Data Architecture

Network & Desktop (Wires, Protocols, etc.)

I

External Systems

← Navy →

The Architecture
(Features)

- TAFIM Compliant
- Standard selection process will ensure interoperability
- Infrastructure-based

Success Factors

- Disciplined approach to the design or procuring of systems which will interface with the Architecture
- The Architecture must be flexible, but have a strong configuration management process
- User must be empowered through training and have access to a suite of COTS tools
- International and Industry standards must be employed -- Let the market decide
- Commitment from the highest levels of the organization